



VCD MP3-CD Mini Hi-Fi System
Video CD ver. 2.0



Let's make things better.




PHILIPS





México

NOM-135-

Es necesario que lea cuidadosamente su instructivo de manejo.

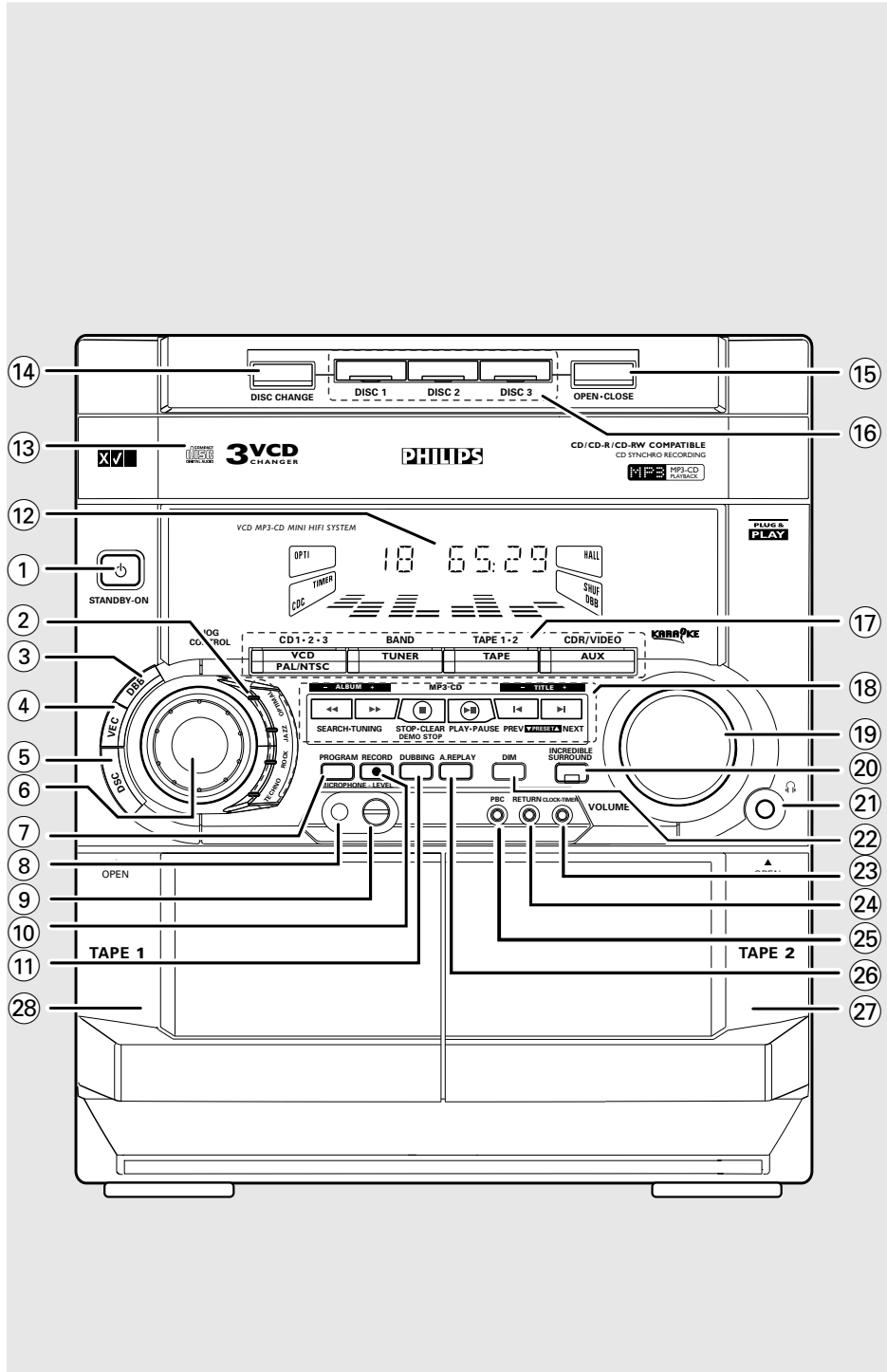
	PRECAUCIÓN - ADVERTENCIA	
	No abrir, riesgo de choque eléctrico	
	ATENCIÓN	
Verifique que el voltaje de alimentación sea el requerido para su aparato		
Para evitar el riesgo de choque eléctrico, no quite la tapa. En caso de requerir servicio, dirijase al personal calificado.		

Descripción: **Minisistema de Audio**
Modelo : **FW-V320/21**
Alimentación: **110-127 / 220-240V~; 50-60 Hz**
Consumo: **75 W**
Importador: **Philips Mexicana, S.A. de C.V.**
Domicilio: **Norte 45, # 669,
Col. Industrial Vallejo
C.P. 02300 México D.F.,
Tel. 5728-4200**
Localidad y Tel: **C.P. 02300 México D.F.,
Tel. 5728-4200**
Exportador: **Philips Electronics HK, Ltd.**
País de Origen: **China**
N° de Serie: _____

**LEA CUIDADOSAMENTE ESTE INSTRUCTIVO
ANTES DE USAR SU APARATO.**

CAUTION

Use of controls or adjustments or performance of procedures other than herein may result in hazardous radiation exposure or other unsafe operation.



3



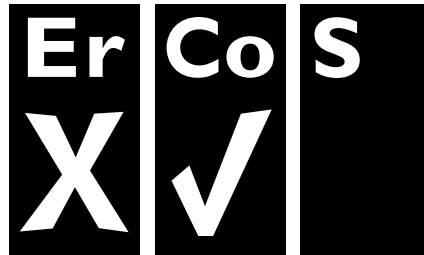
Optimum disc playability : ensuring excellent picture quality

Philips components and modules for the various CD applications have always enjoyed an excellent reputation in the market place for super disc playability - the ability to play discs which may be scratched, soiled or not fully according to the standard specification. This position has been underlined by tests showing the superior performance of the various Philips players, as well as by the positive experiences of millions of individual consumers around the world.

Constantly improving performance

As the penetration of the CD system has increased, and new applications like CD-ROM and Video CD have become commonplace, Philips Components - as the CD technology inventor and as one of the major suppliers of CD player modules in the industry - has constantly improved the performance of its products.

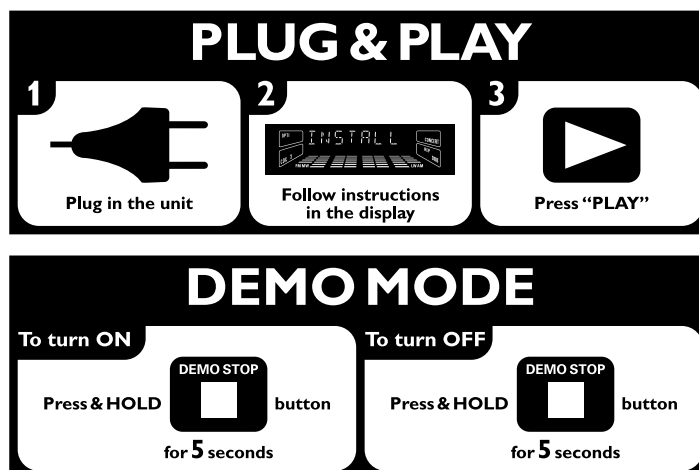
One of the ways in which this benefits users is by optimum disc playability. This is an important parameter for CD players other than CD Audio, and especially for the Video CD applications, because any loss of data from the disc will at best cause disturbances in the reproduced picture, and at worst can cause the player to lose track so that disc playing fails.



Presenting Super Error Correction

To ensure consistently good results when playing Video CD discs of all quality grades and conditions, Philips has introduced further improvements in the system's playability. These developments together are called Super Error Correction, a proprietary Philips technology optimizing the system's ability to handle less-than-perfect discs with the minimum disturbance to normal playing.

By effectively eliminating virtually all errors arising under normal playing conditions, Super Error Correction ensures that the picture quality as seen by the user is independent of disc play. The video encoding and processing during mastering of the disc, and the MPEG-1 decoding and video encoding in the signal processing stages, are now the only limiting factors for picture quality.





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General Information

IMPORTANT:
PLEASE NOTE THAT THE VOLTAGE SELECTOR LOCATED AT THE REAR OF THIS SYSTEM IS PRESET AT 220V FROM THE FACTORY. FOR COUNTRIES THAT OPERATE AT 110-127V, PLEASE ADJUST TO 110-127V BEFORE YOU SWITCH ON THE SYSTEM.

- **The type plate (which contains the serial number) is located at the rear of the player.**
- **Recording is permissible if copyright or other rights of third parties are not infringed.**

Environmental Information

All unnecessary packaging has been omitted. We have tried to make the packaging easy to separate into three materials: cardboard (box), polystyrene foam (buffer) and polyethylene (bags, protective foam sheet).

Your system consists of materials which can be recycled and reused if disassembled by a specialized company. Please observe the local regulations regarding the disposal of packaging materials, exhausted batteries and old equipment.

Supplied Accessories

- Remote control
- Batteries (two AA size) for remote control
- AM loop antenna
- FM wire antenna
- AC power cord
- One Video cinch cable

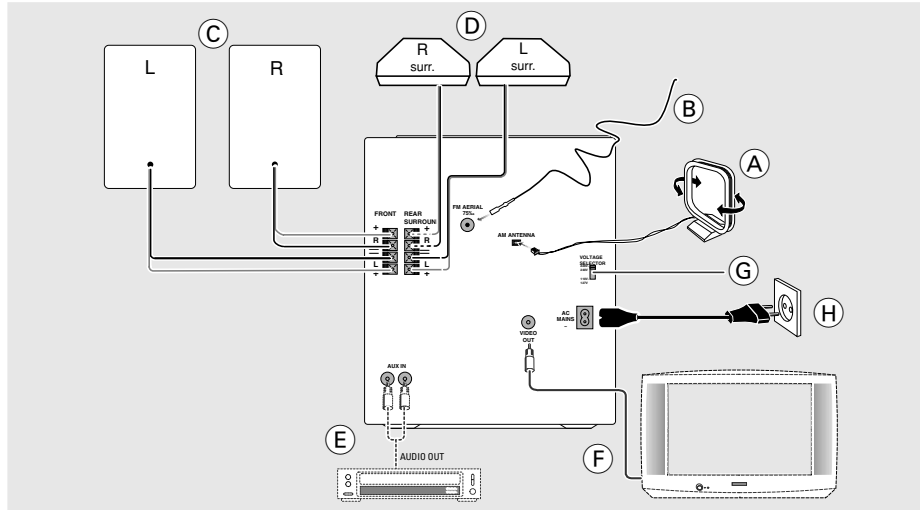
Safety Information

- Before operating the player, check that the operating voltage indicated on the typeplate (or the voltage indication beside the voltage selector) of your player is identical with the voltage of your local power supply. If not, please consult your dealer. The typeplate is located at the rear of your player.
- When the player is switched on, do not move it around.
- Place the player on a solid base (e.g. a cabinet).
- Place the player in a location with adequate ventilation to prevent internal heat build-up in your player: Allow at least 10 cm (4 inches) clearance from the rear and the top of the unit and 5 cm (2 inches) from the each side.
- Do not expose the player to excessive moisture, rain, sand or heat sources.
- Under no circumstances should you repair the player yourself, as this will invalidate the warranty!
- If the player is brought directly from a cold to a warm location, or is placed in a very damp room, moisture may condense on the lens of the disc unit inside the player. Should this occur, the CD player will not operate normally. Leave the power on for about one hour with no disc in the player until normal playback is possible.
- Electrostatic discharge may cause unexpected problems. See whether these problems disappear if you unplug the AC power cord and plug it in again after a few seconds.
- **To disconnect the player from the power supply completely, remove the AC power plug from the wall socket.**



Preparations

English



Rear Connections

(A) AM Loop Antenna Connection

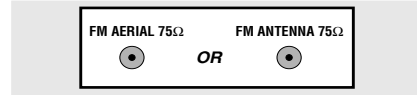
Connect the supplied loop antenna to the AM ANTENNA terminal. Place the AM loop antenna far away from the system and adjust its position for the best reception.

(B) FM Wire Antenna Connection

Connect the supplied FM wire antenna to the FM AERIAL (FM ANTENNA) 75 Ω terminal. Adjust the position of the FM antenna for the best reception.

Outdoor Antenna

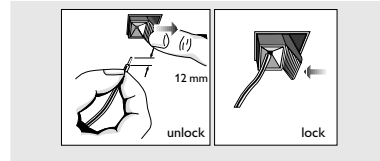
For better FM stereo reception, connect an outdoor FM antenna to the FM AERIAL (FM ANTENNA) 75 Ω terminal using a 75 Ω coaxial wire.



(C) Speakers Connection

- Connect the right speaker to Front terminal R, with the colored wire to + and the black wire to -.
- Connect the left speaker to Front terminal L, with the colored wire to + and the black wire to -.

- Clip the stripped portion of the speaker wire as shown.



CAUTION:

- For optimal sound performance, it is recommended to use the supplied speakers.
- Do not connect more than one speaker to any one pair of + / - speaker terminal.
- Do not connect speakers with impedance lower than the speakers supplied. Please refer to SPECIFICATION section of this manual.

(D) Rear Surround Speakers Connection

Connect the optional Rear Surround Speakers to the REAR SURROUND terminals. Be sure to follow the instructions supplied with the Rear Surround Speakers.

(E) Connecting other equipment to your player

You can connect the audio left and right OUT terminals of a TV, VCR, Laser Disc player, DVD player or CD Recorder to the AUX IN terminals at the rear of the system.



Preparation

F Video Out Connection

Connect the VIDEO OUT terminal at the rear of the system to the TV or VCR VIDEO IN for viewing or recording.

G Adjusting the Operating Voltage

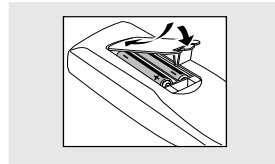
Before connecting the AC power cord to the wall outlet, make sure that the voltage selector at the rear of the system is set to the local power line voltage. If not, reset the selector before connecting to the wall outlet.

H AC Power Supply

After all other connections have been made, connect the AC power cord to the system and to the wall outlet.

Inserting batteries into the Remote Control

- Insert the batteries (Type R06 or AA) into the remote control as shown in the battery compartment.



CAUTION

- Remove batteries if they are exhausted or not to be used for a long time.
- Do not use old and new or different types of batteries in combination.
- Batteries contain chemical substances, so they should be disposed off properly.

Controls (main system's illustration on page 3)

Controls on the player and remote control

① STANDBY-ON

- switches the system to standby/on.

② DIGITAL SOUND CONTROL DISPLAY PANEL

- to view the desired DSC display.

③ DBB (DYNAMIC BASS BOOST)

- to switch on bass boost, to enhance bass response or to switch off bass boost.

④ VEC (VIRTUAL ENVIRONMENT CONTROL)

- to select the desired Virtual Environment Control effect : HALL, CINEMA or CONCERT.

⑤ DSC (DIGITAL SOUND CONTROL)

- to select the desired sound effect : OPTIMAL, JAZZ, ROCK or TECHNO.

⑥ JOG CONTROL

- to select the desired DSC setting. You must select the DSC feature first.
- to select the desired VEC setting. You must select the VEC feature first.

⑦ PROGRAM (PROG)

for VCD/CD/MP3-CD...to programme disc tracks.

for TUNERto programme preset radio stations.

for CLOCKto select 12- or 24- hour in clock setting mode (on the system only).

⑧ MICROPHONE

- to connect microphone jack.

⑨ MIC LEVEL

- to adjust the mixing level for karaoke or microphone recording.

⑩ RECORD

- to start recording on tape deck 2.

⑪ DUBBING

- to dub a tape in normal speed.

⑫ DISPLAY SCREEN

- to view the current setting of the system.

⑬ CD CHANGER TRAY

⑭ DISC CHANGE

- to change disc(s).



Controls

⑮ OPEN•CLOSE

- to open or close the CD changer tray.

⑯ DISC 1 / DISC 2 / DISC 3 (DISC DIRECT PLAY)

- to select a disc tray for playback.

⑰ SOURCE – to select the following:

VCD / (CD 1•2•3)

- to select VCD/CD mode (*this system can playback MP3-CD format disc also*). When VCD/CD playback is stopped, press to select the disc tray 1, 2 or 3.

PAL / NTSC

- to select corresponding PAL or NTSC system of your TV set (exception Multi-system TV).

TUNER / (BAND)

- to select Tuner mode. When in tuner mode, press to select the waveband: FM or MW.

TAPE / (TAPE 1• 2)

- to select Tape mode. When tape playback is stopped, press to select either tape deck 1 or 2.

AUX (VIDEO)

- to select sound from an external source (e.g. TV, VCR, Laser Disc player, DVD player or CD Recorder).

⑱ MODE SELECTION

SEARCH ◀▶ (TUNING ◀▶▶)

(ALBUM –/+)

- for MP3-CD only...to select previous/next Album

- for VCD only...to move the zoomed picture to the left or right.

- for VCD/CD...to search backward/forward during playback.

- for TUNERto tune to a lower or higher radio frequency.

- for TAPEto rewind or fast forward a tape.

- for CLOCKto set the hour (*on the system only*).

STOP•CLEAR ■

- for VCD/CD/MP3-CD...to stop disc playback or to clear a programme.

- for TUNERto stop programming (*on the system only*).

- for TAPEto stop playback or recording.

- for DEMOto start or stop demonstration mode (*on the system only*).

- for CLOCKto exit clock setting or cancel timer (*on the system only*).

- for PLUG & PLAY...to exit plug & play mode and return to standby mode (*on the system only*).

PLAY•PAUSE ▶II

- for VCD/CD/MP3-CD...to start or interrupt playback.

- for VCD only...to watch a still picture.

- for TAPEto start playback.

- for PLUG & PLAY...to initiate and start plug & play from standby/demo mode (*on the system only*).

PREV ◀ / NEXT ▶ (PRESET ▼▲) (TITLE –/+)

- for MP3-CD only...to select previous/next Title.

- for VCD only...to move the zoomed picture down or up.

- for VCD with PBC on

-to select next or previous MENU or VCD track during playback.

- for VCD/CDto skip to the previous, or next track.

- for TUNERto select a preset station in memory.

- for CLOCKto set the minute (*on the system only*).

⑲ VOLUME

- to increase or decrease the volume.

⑳ INCREDIBLE SURROUND

- to switch on or off the surround sound effect.

㉑

- to connect headphones.

㉒ DIM

- to select different brightness for the display screen : DIM 1, DIM 2, DIM 3 or DIM OFF.

㉓ CLOCK•TIMER

- to view the clock, set the clock or set the timer.

㉔ RETURN

- for VCD with PBC on to return to the previous MENU level during playback (*for VCD version 2.0 only*).

㉕ PBC (PLAYBACK CONTROL)

- to switch on or off PBC mode (*for VCD version 2.0 only*).

㉖ A. REPLAY (AUTO REPLAY)

- to select playback mode either in continuous AUTO REPLAY or ONCE only.

㉗ TAPE DECK 2

㉘ TAPE DECK 1

㉙ OSD (ON SCREEN DISPLAY)

- to switch on or off the on screen display on the TV screen.



Controls

English

30 ZOOM

- to enlarge a still picture on the TV screen (for VCD operation only).

31 VOCAL

- to fade out the vocal of the original song during VCD playback or to switch between mono or stereo mode during audio disc playback (for VCD/CD/MP3 operation only).

32 KEY CONTROL (b h #)

- to change the key to suit your vocal range (for VCD operation only).
 - b to decrease vocal key level.
 - h to restore vocal key to original setting.
 - # to increase vocal key level.

33 ECHO - / +

- to adjust the echo level for karaoke (for VCD operation only).

34 RESUME

- to continue playback again from where you have stopped. Only when PBC mode is switched off (for VCD operation only).

35 SLOW

- to watch a VCD at a slower speed. There are 3 modes of selection (for VCD operation only).

36 A - B

- to playback a certain scene or passage of a VCD/CD repeatedly.

37 DIGEST

- to scan through a VCD or a particular track. There are 4 modes of selection (for VCD operation only).

38 REPEAT

- to repeat a disc track or the current disc.

39 DIGIT 0 - 9

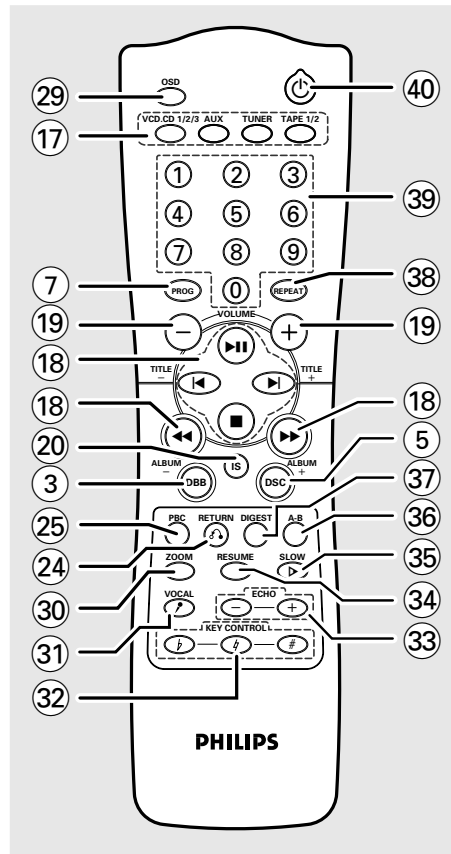
(numbers consisting more than two figures must be keyed in within 2 seconds.)

for VCD with PBC on... to select an entry level.

for VCD/CD/MP3-CD... to key in a disc track to start playback or
 to select another track during playback or
 to select a track for programming.

40

- to switch the system to standby mode.



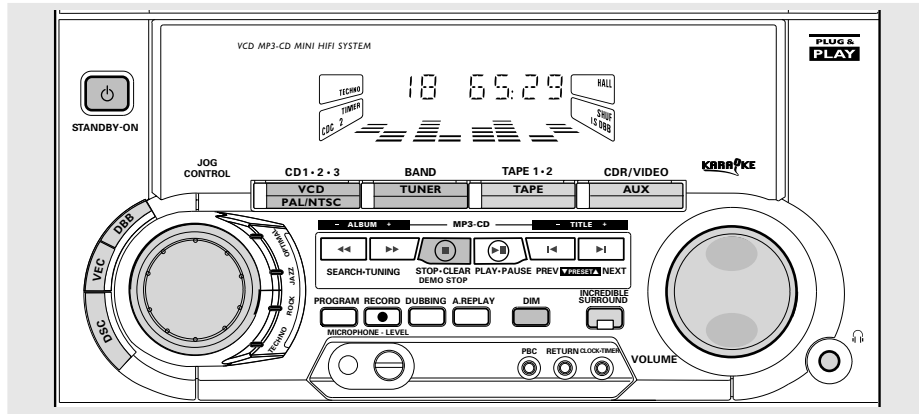
Notes for remote control:

- First select the source you wish to control by pressing one of the source select keys on the remote control (e.g. VCD, TUNER, etc.).
- Then select the desired function (▶, ◀, ▶|, etc.).



Operating the System

English



Important:

Before you operate the system, complete the preparation procedures.

Plug and Play

The system provides PLUG and PLAY feature that allows you to store all available radio stations automatically upon power up.

If the PLUG and PLAY has not been installed

- 1 Upon power up, "AUTO INSTALL - PRESS PLAY" will be displayed.
- 2 Press **PLAY** (on the system only) to start installation.
 - "INSTALL" will be displayed and followed by "TUNER" and then "AUTO".
 - The **PROG** starts flashing.
 - PLUG and PLAY will start searching for all radio stations on FM band and then followed by radio stations on MW band.
 - All available radio stations with sufficient signal strength will be stored. Up to 40 presets may be stored.
 - The last preset radio station will appear on the display when PLUG and PLAY is completed.

To reinstall the PLUG & PLAY

- 1 In Standby or Demonstration mode, press and hold **PLAY** for five seconds (on the system only) "AUTO INSTALL - PRESS PLAY" will be displayed.
 - 2 Press **PLAY** (on the system only) again to start installation.
- To exit without storing the PLUG and PLAY, press **■** button (on the system only).

Notes:

- PLUG and PLAY will be reinitiated again during the next power up if:
 - i) PLUG and PLAY installation was not completed.
 - ii) No stereo frequency being detected during PLUG and PLAY, "CHECK ANTENNA" will be displayed.
- You can store any radio stations manually or automatically after PLUG and PLAY.
- When PLUG and PLAY is used, all previously stored radio stations will be replaced.
- During PLUG and PLAY, if no button is pressed within 15 seconds, the system will go to demonstration mode (if demonstration mode is enable)



Operating the System

Demonstration mode

The system has a demonstration mode that shows the various features offered by the system.

To disable the demonstration mode

- Press and hold **■** (on the system only) for **5 seconds** when the system is in demonstration mode.
→ "DEMO OFF" is displayed.
→ The system will switch to standby mode.

To enable the demonstration mode

- Press and hold **■** (on the system only) for **5 seconds** when the system is in standby mode.
→ The demonstration will begin.

Notes:

- If the demonstration mode has not been disabled, it will resume 5 seconds later after the system switches to standby mode.
- When the system is switched on from the main power outlet, the VCD changer tray may open and close again to initialize the set.
- Even though the AC power cord is removed from and reconnected to the wall socket, the demonstration will remain off until it is switched on again.

Switching the system ON

- Press **VCD, TUNER, TAPE** or **AUX**.
- Press **STANDBY-ON** in demo.

You can also switch on the system by pressing any one of the VCD DIRECT PLAY buttons.

Switching the system to standby mode

- Press **STANDBY-ON** or **⏻** on the remote control.
→ The system will switch to standby mode.

Selecting the Source

- Press the respective source selection button: **VCD, TUNER, TAPE** or **AUX**.
→ The display indicates the selected source.

Note:

- For an external source, make sure you have connected the audio left and right OUT terminals of the external equipment (TV, VCR, Laser Disc player, DVD player or CD Recorder) to the AUX IN terminals.

DIM mode

You can select the desired brightness for the display.

- Press **DIM** to select DIM 1, DIM 2, DIM 3 or DIM OFF display mode.
→ The **DIM** display lights up.
→ "DIM 1", "DIM 2", "DIM 3" or "DIM OFF" will be displayed depending on the mode selected.

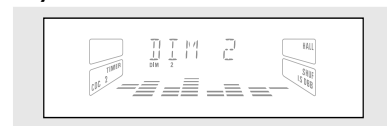
DIM OFF - normal brightness with Spectrum Analyser On



DIM 1 - normal brightness with Spectrum Analyser Off



DIM 2 - half brightness with Spectrum Analyser On



DIM 3 - half brightness with Spectrum Analyser Off and all LEDs on the system will be switched off.






Operating the System

Sound Control

VOLUME ADJUSTMENT

Adjust **VOLUME** to increase or decrease the sound level.

For Personal Listening

Connect the headphones plug to the  socket at the front of the system. The speakers will be muted.

DIGITAL SOUND CONTROL (DSC)

The DSC feature enables you to enjoy special sound effects that have preset equalizer settings, providing the best music reproduction.

- 1 Press to select the **DSC** feature.
→ DSC led lights up.
- 2 Adjust **JOG CONTROL** to select OPTIMAL, JAZZ, ROCK or TECHNO.
→ The Digital Sound Control display panel will light up respectively.
→ "OPTIMAL, JAZZ, ROCK or TECHNO" and the respective flag will be displayed.

Note:

– When "OPTIMAL" sound is selected, DBB will be switched on automatically.

DYNAMIC BASS BOOST (DBB)

The DBB mode enhances the bass response.

- Press **DBB** to switch on bass response.
→ The DBB button lights up.
→ "DBB ON" and the DBB flag will be displayed.

To switch off DBB

- Press **DBB** again.
→ The DBB button light is switched off.
→ "DBB OFF" will be displayed.
→ The DBB flag disappear from the display.

Note:

– Some discs or tapes might be recorded in high modulation, which causes a distortion at high volume. If this occurs, switch off DBB or reduce the volume.

VIRTUAL ENVIRONMENT CONTROL (VEC)

The VEC feature enables you to adjust the system to select a type of environment.

- 1 Press to select the **VEC** feature.
→ VEC led lights up.
- 2 Adjust the **JOG CONTROL** to select the desired Virtual Environment Control setting : HALL, CINEMA or CONCERT.
→ "HALL, CINEMA or CONCERT" and the respective flag will be displayed.

VEC Selection	DBB	IS
HALL	On	On
CONCERT	Off	On
CINEMA	Off	On

INCREDIBLE SURROUND

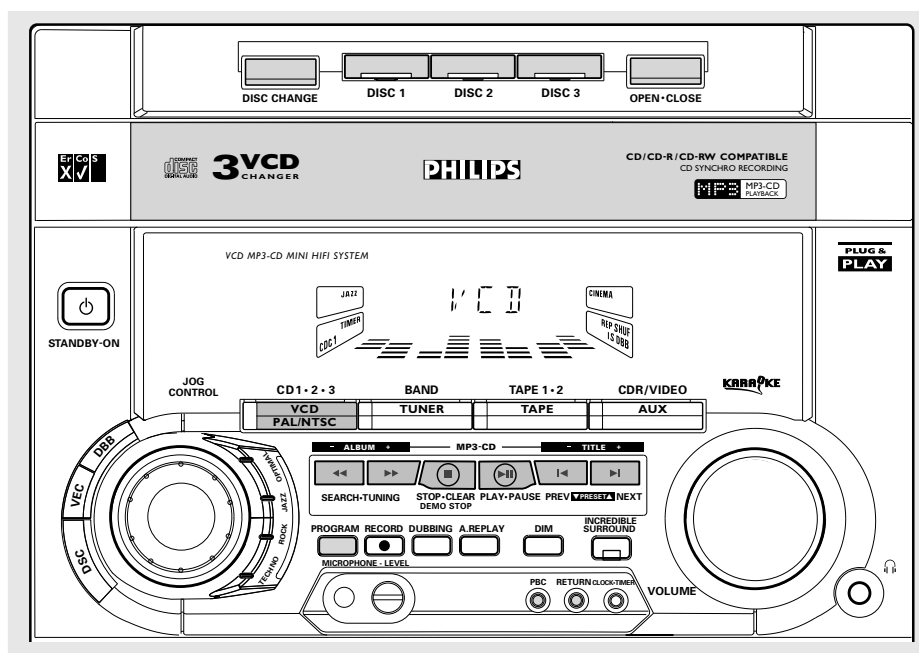
Normal stereo sound is determined by the distance between the front speakers. When Incredible Surround is switched on, it magnifies the virtual distance between the front speakers for an incredibly wide, enveloping, stereo effect.

- Press INCREDIBLE SURROUND to switch on.
→ The INCREDIBLE SURROUND button lights up.
→ "INCR SURROUND" and the IS flag will be displayed.

To switch off Incredible Surround

- Press INCREDIBLE SURROUND again.
→ The INCREDIBLE SURROUND button light is switched off.
→ "IS OFF" will be displayed.
→ The IS flag disappear from the display.

CD / VCD / MP3-CD



English

Warning!

- 1) This system is designed for conventional discs. Do not use any accessories such as disc stabilizer rings or disc treatment sheets, etc., which may damage the disc mechanism.
- 2) Do not load more than one disc into each tray.
- 3) When the VCD changer is loaded with discs, do not turn over or shake the system. This may jam the changer.

You may load three discs in the VCD changer for continuous playback without interruption.

Before viewing the Video CD, ensure that the set is switched to corresponding PAL or NTSC system of your TV set (exception Multi-system TV).

Discs for playback

This system can play all digital audio disc, finalised digital audio CD-Recordable, finalised digital audio CD-Rewritable and MP3-CD format discs.



Support following MP3-CD formats (ISO9660 format):

- Max. 30 characters
- Max. nested directory is 8 levels
- The max. ALB number is 32
- The max. MP3 programme track number is 99
- Supported VBR bit-rate
- Supported sampling frequencies for MP3 disc are: 32 kHz, 44.1 kHz, 48 kHz
- Supported Bit-rates of MP3 disc are: 32, 64, 96, 128, 192, 256 (kbps)



CD / VCD / MP3-CD

Following formats can't be supported

- The files like *.WMA, *.AAC, *.DLF, *.M3U, *.PLS
- Chinese filename
- The non-session closed discs
- The discs recorded under UDF format

Note:

— For mixed mode discs, only one mode will be selected for playback depending on the recording format.

Loading a Disc

- 1 Press **VCD** to select VCD/CD mode.
- 2 Press **OPEN•CLOSE**.
→ The disc changer tray slides out.
- 3 Load a disc with the printed side up in the right tray.
 - You can load another disc in the left tray.
 - To load the third disc, press the **DISC CHANGE** button.
→ The disc changer tray will rotate until the empty tray is ready for loading.
- 4 Press **OPEN•CLOSE** to close the disc changer tray.
→ The total number of tracks and the playing time of the selected disc appear on the display.

For MP3-CD only:

→ The first Album and the first Title information appear on the display.

Note:

— To ensure good system performance, wait until the disc changer completely reads the disc(s) before proceeding.
— For MP3-CD, the disc reading time may exceed 10 seconds due to the large number of songs compiled into one disc.

Disc Direct Play

- To start playback from a selected disc tray, press **DISC 1**, **DISC 2** or **DISC 3** button.
→ All the available discs will play once, then stop.

Playing a normal disc

For normal VCD:

Ensure that the system is switched to the corresponding PAL or NTSC system of your TV set (except multi-system TV).

- 1 Press **PLAY ►II** to start playback.
 - All the available discs will play once, then stop.
 - The disc tray, track number and elapsed playing time of the current track appear on the display.
- To interrupt playback, press **PAUSE ►II**
→ The playing time flashes.
- To resume playback, press **PLAY ►II** again.

For MP3-CD only:

→ **TITLE** will appear on the display.

- 2 To stop playback, press **■**.

Note:

— During Disc Reading mode, if you press any button, "PLEASE WAIT" will be displayed.

Disc Change

You can change the outer two discs while the third inner disc is stopped or is playing.

- 1 Press **DISC CHANGE**.
→ The disc changer tray slides out.
- 2 Replace the discs in the left and right disc trays.
 - If you wish to change the inner disc during playback, press **DISC CHANGE** again.
→ "CHANGING DISC" will be displayed.
→ The disc will stop playing.
→ The disc changer tray will close to retrieve the inner disc and then open again with the inner disc accessible.
- 3 Press **OPEN•CLOSE** to close the disc changer tray.



CD / VCD / MP3-CD

Selecting a desired track

Selecting a desired track when playback is stopped

- Press **digit 0 – 9** on the remote control to select the desired track.
 - Playback will start immediately for the selected track.
 - The selected track number and elapsed playing time appear on the display.

Note:

- Maximum track selection from digital keys on remote control is 199 for MP3-CD and 99 for VCD/CD.

Selecting a desired track during playback

- Press **◀** or **▶** (or **digit 0-9** on the remote control) until the desired track appears on the display.
 - The selected track number and elapsed playing time appear on the display.
- If you press **◀** once it will skip to the beginning of the current track and play the track again.

For MP3-CD only

- 1 Press **ALBUM -/+** (**◀◀** or **▶▶**) until the desired Album appears on the display.
- 2 Press **TITLE -/+** (**◀** or **▶**) until the desired Title appears on the display.
 - The selected track number and elapsed playing time appear on the display.
- 3 Press **PLAY ▶II** to start playback.

Searching for a particular passage during playback

- Press **◀◀** or **▶▶** to select 4 different search speed.
 - "FRX1" ; "FRX2" ; "FRX3" or "FRX4" is displayed on the TV screen when you select a fast rewind search.
 - "FFX1" ; "FFX2" ; "FFX3" or "FFX4" is displayed on the TV screen when you select a fast forward search.
 - Normal playback will begin at the end of the fast rewinding or forwarding of the selected track.
- Play returns to normal when **PLAY ▶II** is pressed or when a new track is selected.

Programming Tracks

Programming tracks of a loaded disc is possible when playback is stopped. The display will indicate the total tracks stored in the programme. Up to 99 tracks can be stored in the memory in any order. When 99 tracks are stored and you attempt to store another track, the display will show "PROGRAM FULL".

Note:

- Programme cannot be used for VCDs when PBC is switched on. Switch off PBC before storing tracks from such a VCD.

- 1 Load the desired discs in the disc trays.
- 2 Press the **VCD** (CD 1•2•3) button to select the disc tray.
 - Programming can only be done on the selected disc.
- 3 Press **PROGRAM** to start programming.
 - The PROG flag starts flashing.
- 4 Press **◀** or **▶** (or **digit 0-9** on the remote control) to select the desired track.
- For MP3-CD, press **ALBUM -/+** and **TITLE -/+** to select the desired Album and Title for programming.
- 5 Press **PROGRAM** to store the track.
- Repeat steps 4 to 5 to store other discs and tracks.
- 6 Press **■** once to end programming.
 - The total number of tracks programmed and total playing time appear on the display.

Notes:

- For MP3-CD, total playing time will not be shown.
- If the total playing time is more than "99:59" then "----:--" appears on the display instead of the total playing time.
- During programming, if no button is pressed within 20 seconds, the system will exit programme mode automatically.

Reviewing the programme

Reviewing of the programme is possible only when playback is stopped.

- Press **◀** or **▶** repeatedly to review the programmed tracks.
- Press **■** to exit review mode.



CD / VCD / MP3-CD

Playing the programme

- 1 Press **PLAY ►** to start programme playback.
→ "PLAY PROGRAM" will be displayed.
→ The track number and elapsed playing time of the current track will appear on the display.
- If you press **REPEAT** during programme playback, the current track or all programmed tracks will be played repeatedly.
→ "REPEAT TRACK", "REPEAT PROGRAM" or "REPEAT OFF" will be displayed.
→ The **REP** and **PROG** flags appear on the display.

- 2 Press **■** to stop programme playback.

Note:

— If you press any other **DISC DIRECT PLAY** buttons, the system will play the selected disc and the stored programme will be cleared.

Erasing the programme *(when playback is stopped)*

- Press **■**.
→ "PROGRAM CLEAR" will be displayed.

Note:

— The programme will be erased when the system is disconnected from the power supply or switched to standby mode or other sources or when you change the programme disc.

Repeat *(only on remote control)*

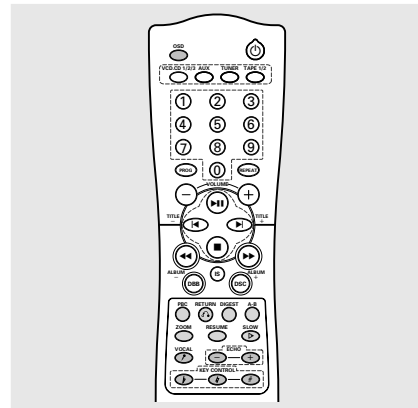
You can play the current track or a disc repeatedly.

- 1 Press **REPEAT** on the remote control to select the various repeat modes.
→ "REPEAT TRACK", "REPEAT DISC" or "REPEAT OFF" will be displayed.
→ The **REP** flag appears on the display.
- The current track or disc will now be played repeatedly until you press **■**.
- 2 Press **REPEAT** until the "REPEAT OFF" mode is displayed to resume normal playback.
→ The **REP** flag disappears from the display.

Notes:

— **REPEAT DISC mode is not available during programme play mode.**

VIDEO CD



Adjusting the TV System

Before viewing the Video CD, ensure that the set is switched to corresponding PAL or NTSC system of your TV set (exception Multi – system TV).

- Press and hold **PAL/NTSC** for more than **2 seconds** to switch between PAL or NTSC TV system.
→ After TV system is selected, the set will automatically switch to the last TV system setting every time the VCD source is selected.

Note:

— Before adjusting the TV system, make sure that there is no MP3-CD in disc tray 1 during power up.

OSD – On Screen Display

If you insert VCD/CD, your TV screen will serve as an additional display for messages (e.g. PLAY, STOP), and information stored on the VCD/CD.

- Press **OSD** on the remote control repeatedly to switch ON or OFF.

When OSD is switched ON; you can see the following display on the TV screen.

Below is an example of the OSD message.



CD / VCD / MP3-CD

SINGLE ELAPSED PLAY XX/TT MM:SS

Notes:

- "XX" is the current track.
- "TT" is the total tracks.
- "MM" is in minutes.
- "SS" is in seconds.

When OSD is switched off, there is no information indicated on the TV screen.

Playing a Video CD with PBC

VCD with PBC (Playback Control) will be indicated on the display of the set and on your TV screen as soon as they are inserted. PBC is a predefined play sequence stored on the VCD.

- 1 Switch on the TV, insert a VCD with PBC and press **PLAY ►II** to start playback.
- 2 **MENU** appears on the TV screen.

If the menu consists of a list of titles, you can select a sequence directly

- 1 Select your choice with the **digit keys 0 - 9** on the remote control. The VCD starts playing of the selected sequence automatically.
→ The VCD starts playing of the selected sequence automatically.
- 2 Press **RETURN** on the remote control to go back to the previous menu.

Note:

- If a menu consists of more than one page, press **◀ / ▶** to go through the pages.

Switching off PBC

- In stop mode, press **PBC**.
→ On TV screen, "**PBC OFF**" will be displayed.

Notes:

- Programme mode is not available whenever PBC mode is switched on.
- The menu structure depends on the programme stored on the VCD. Please refer to the information supplied with the disc.

Pause

- 1 Press **PAUSE ►II** to have a still picture on the TV screen.
→ On TV screen, "**PAUSE**" will be displayed.
- 2 Press **PLAY ►II** again to continue playback.

Note:

- Audio is muted during Pause.

Slow

- 1 Press **SLOW** on the remote control to watch a VCD at a slower speed. There are 3 types of slow modes to select.
→ On TV screen, "**SLOW 1**", "**SLOW 2**" or "**SLOW 3**" will be displayed.
- 2 Press **PLAY ►II** again to resume playback at normal speed.

Note:

- Audio is muted in Slow mode.

Resume

This feature is also applicable to audio CD (except for MP3-CD).

- 1 Press **■** to stop playback.
- 2 Press **RESUME** on the remote control to start playback again from where you have stopped.
→ "**RESUME**" appears on the display.

Note:

- Resume information is lost if you select another disc or the set is disconnected from the mains, the system is switched to standby mode or when you change source.
- Resume is not available when PBC mode is switched on.



CD / VCD / MP3-CD

Zoom

This feature enables you to view a still picture frame in an enlarge mode.

After you have pressed **PAUSE ►II** to have a still picture on the TV screen.

- 1 Press **ZOOM** once to enlarge the still picture by 2 times.
→ "ZOOM" appears on the TV screen.
 - You can move the zoom picture left or right by pressing ◀ or ▶ respectively.
 - You can move the zoom picture down or up by pressing ⏮ or ⏭ respectively.
- 2 Press **ZOOM** once more to return to normal still frame.
- 3 Press **PLAY ►II** again on the remote control to continue playback.

A-B Repeat

This feature is also applicable to audio CD (except for MP3-CD). To play a certain scene or passage of the disc repeatedly.

- 1 Press **A-B** on the remote control during playback to mark the start of the chosen scene or passage.
→ "SET A" appears on the display.
- 2 Press **A-B** again to mark the end of the chosen scene or passage.
→ "SET B" appears on the display.
→ The selected scene or passage is played repeatedly.
→ "PLAY AB" appears on the display.
- 3 Press **A-B** once more to return to normal playback.
→ "CLEAR AB" appears on the display.

Notes:

- You can also cancel A-B Repeat by pressing ⏮ or ⏭.
- You can only repeat a maximum of one track. Once it cross from one track to the next, the A-B marking is reset.

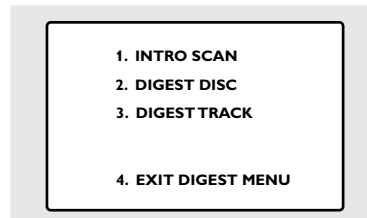
Return ↶

- Press **RETURN** to return to the previous VCD disc MENU level. It is functional only for Video CD when PBC is switched on.

Digest

This feature allows you to scan through a VCD for a quick review. PBC mode must be switched off. There are four digest mode for selection.

- 1 Press **DIGEST**.
→ "DIGEST" appears on the display.
→ "1.INTRO SCAN", "2.DIGEST DISC", "3.DIGEST TRACK" and "4.EXIT DIGEST MENU" appear on the TV screen.



- Press **digit 1** on the remote control to select "INTRO SCAN".
→ The first 10 seconds of each track are played.
- Press **digit 2** on the remote control to select "DIGEST DISC".
→ The first frame of each track appears on the TV screen.
→ Press digit 0 – 9 on the remote control to playback the desired tracks.
→ Press ⏮ or ⏭ to view the previous or next page for additional information.
- Press **digit 3** on the remote control to select "DIGEST TRACK".
→ The first track of the selected disc will be divided into 9 parts and displayed on the TV screen.
→ Press **digit 0 – 9** on the remote control to playback the desired parts.
→ Press ⏮ or ⏭ to digest the next track.
- Press **digit 4** on the remote control to select "EXIT DIGEST MENU".
→ Digest mode will be exited.



CD / VCD / MP3-CD

Vocal

This feature allows you to fade out the original vocal from a karaoke VCD. This feature is used together with Echo mode. You can also use it to select the different audio modes.

- **STEREO** – same effect as the original recorded disc.
- **STEREO VOCAL LEFT/RIGHT** – fade out the original vocal for special recorded Karaoke disc only (with the ECHO mode switched on).
- **MONO LEFT/RIGHT** – select the language on a bilingual VCD.

Ensure that Echo mode is switched on when press **VOCAL** to fade out the original vocal during STEREO VOCAL LEFT/RIGHT mode.

- Pressing **VOCAL** repeatedly allows you to select the following modes.
→ STEREO → STEREO VOCAL LEFT → STEREO VOCAL RIGHT → MONO LEFT → MONO RIGHT → STEREO ...

Echo

This feature allows you to add echo while singing or talking through a microphone.

- Press **ECHO** $-/+$ to decrease or increase the echo effect.
→ "ECHO $+x$ " or "ECHO OFF" appears on the display.

Notes:

- " x " denotes the echo level.
- You are advised to put echo to the minimum level when you are not using the feature.
- Echo mode is switched off when echo is at the minimum level.

Key Control (b h #)

This feature allows you to change the key of your vocal range.

- Press **b** or **#** to increase or decrease vocal key level.
→ "KEY $-x$ " or "KEY $+x$ " appears on the display.
- Press **h** to restore vocal key to original setting.
→ "KEY FLAT" appears on the display.

Notes:

- " x " denotes the key level.

MP3 Disc

Album

This feature allows you to view and select the next or previous MP3-CD Album.

- Press **ALBUM** $-/+$ (\blacktriangleleft or \blacktriangleright) to scroll through the previous or next Album name until the desired Album appears on the display.
→ **ALB** will start flashing.
→ The selected Album will appear on the display and follow by "xxx Txxx".

Title

This feature allows you to view and select the next or previous MP3-CD Title.

- Press **TITLE** $-/+$ (\blacktriangleleft , \blacktriangleright or **digit 0-9** on the remote control) to scroll through the previous or next Title name until the desired Title appears on the display.
→ **TITLE** will start flashing.
→ The selected Title will appear on the display and followed by "xxx Txxx".

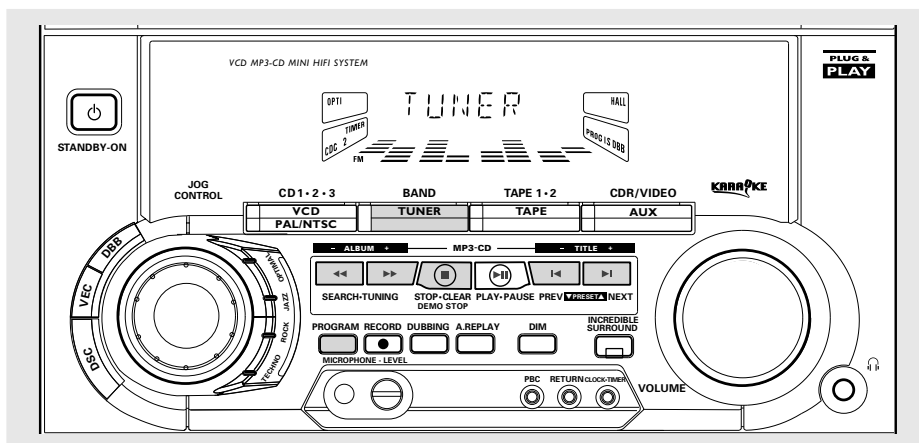
Note:

- "A" represents ALBUM and "T" represents TITLE, "xx" or "xxx" is the current selected Album or Title number.



Tuner

English



Note:

- For 'PLUG & PLAY' feature, please refer to page 12.

Tuning to radio stations

- 1 Press **TUNER** (BAND) to select TUNER mode.
→ "TUNER" will be displayed.
A few seconds later, the current radio frequency will be displayed.
 - 2 Press **TUNER** (BAND) again to select the desired waveband : FM or MW.
 - 3 Press **◀◀** or **▶▶** for more than one second, then release.
→ The display will show "SEARCH" until a radio station with sufficient signal strength is found.
- Repeat this procedure until the desired station is reached.
 - To tune to a weak station, briefly press **◀◀** or **▶▶** repeatedly until the display shows the desired frequency and/or when the best reception has been obtained.

Storing Preset Stations

You can store up to 40 radio stations in the memory. When a preset radio station is selected, the preset number appears next to the frequency on the display.

Automatic programming

- 1 Press **TUNER** (BAND).
- 2 Press **PROGRAM** for more than one second.
→ The **PROG** flag starts flashing and "AUTO" will be displayed.
→ The system will search for every available station in the FM waveband first, then search the MW waveband.
→ All available stations will be stored automatically. The frequency and preset number will be displayed briefly.
→ The system will stop searching when all the available radio stations are stored or when the memory for 40 preset radio stations is used.
→ The system will remain tuned to the last stored preset radio station.

Notes:

- You can cancel the automatic programming by pressing **PROGRAM** or **■** (on the system only).
- If you want to reserve a section of preset numbers, for example preset numbers 1 to 9, select preset 10 before starting automatic programming, only the preset numbers 10 to 40 will be programmed.



Tuner

Manual programming

- 1 Press **TUNER** (BAND).
- 2 Press **TUNER** (BAND) again to select the desired waveband : FM or MW.
- 3 Press **PROGRAM** for less than one second.
 - The **PROG** flag starts flashing.
 - The next available preset number will be displayed for selection.
- 4 Press **◀** or **▶** to tune to the desired frequency.
 - If you wish to store the radio station to another preset number, press **▼** or **▲** to select the desired preset number.
- 5 Press **PROGRAM** again.
 - The **PROG** flag disappears and the radio station will be stored.
- Repeat **steps 3 – 5** to store other preset radio stations.

Notes:

- When 40 radio stations are stored and you attempt to store another radio station, the display will show "PROGRAM FULL". If you want to change an existing preset number, repeat steps 3 – 5.
- You can cancel manual programming by pressing **■** (on the system only).
- During programming, if no button is pressed within 20 seconds, the system will exit programme mode automatically.

Tuning to Preset Radio Stations

- Press **▼** or **▲** to select the desired preset number.
 - The preset number, radio frequency, and waveband appear on the display.

Changing the MW tuning grid *(for specific version only)*

The frequency step can be changed if necessary. In North and South America, the frequency step between adjacent channels in the MW band is 10 kHz. In other parts of the world, it is 9 kHz. The frequency step preset in the factory is 9 KHz.

For MW Band

To change from 9 kHz to 10 kHz or vice versa

Changing of tuning grid will erase all previously stored preset stations.

- 1 Disconnect the system from the AC power supply (pull out the AC power cord).
- 2 Press and hold **TUNER** and **TUNING ▶▶** while reconnecting the system to the AC power supply.
 - Display will show "GRID 10" or "GRID 9".

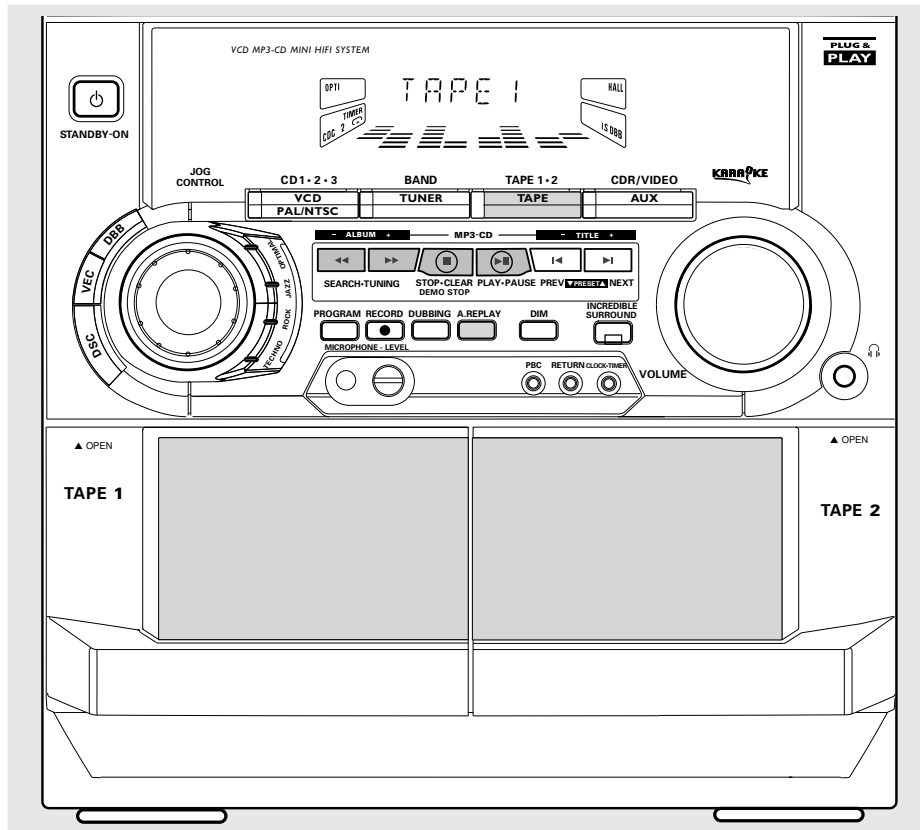
Notes:

- GRID 9 indicates that the tuning grid is in step of 9 kHz in MW band. GRID 10 indicates that the tuning grid is in step of 10 kHz in MW band.
- FM tuning grid will also be changed from 50 kHz to 100 kHz or vice versa.



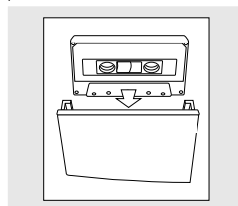
Tape

English



Loading a tape

- 1 Press **OPEN**.
- 2 The tape deck door opens.
- 3 Load the tape with the open side downward and the full spool to the left.



- 4 Close the tape deck door.

Auto Replay

- Press **A. REPLAY** to select either continuous AUTO REPLAY or ONCE during tape playback.
→ "AUTO REPLAY" (↺) or "ONCE" (↵) will be displayed.

Notes:

- This feature is available during tape playback only.
- When "AUTO REPLAY" is selected, the tape will rewind automatically at the end of playback for the selected side. Then it will start playing again. It will replay up to a maximum of 20 times until you press **■**.
- When "ONCE" is selected, the tape will play the selected side once and then stop.





Tape

Tape Playback

- 1 Press **TAPE** (TAPE 1•2) to select TAPE mode.
→ "TAPE 1" or "TAPE 2" will be displayed and followed by "T 1 >>>" or "T 2 >>>".
- 2 Load the tape into the selected tape deck.
- 3 Press **PLAY** ► to start playback.
→ "T 1" or "T 2" with ">" scrolling right will be displayed.
- Press **A.REPLAY** to select the different type of playback mode (see Auto Replay)
- 4 Press ■ to end playback.
→ "T 1" or "T 2" with ">>>" will be displayed.

Rewind/Fast Forward

When playback is stopped

- 1 You can rewind or fast forward the tape by pressing ◀ or ▶ respectively.
→ If rewinding, "T 1 <" or "T 2 <" with "<" scrolling left will be displayed.
→ If fast forwarding, "T 1 >" or "T 2 >" with ">" scrolling right will be displayed.
→ The tape will stop automatically at the end of rewinding or fast forwarding.
- 2 Press ■ to stop rewinding or fast forwarding.

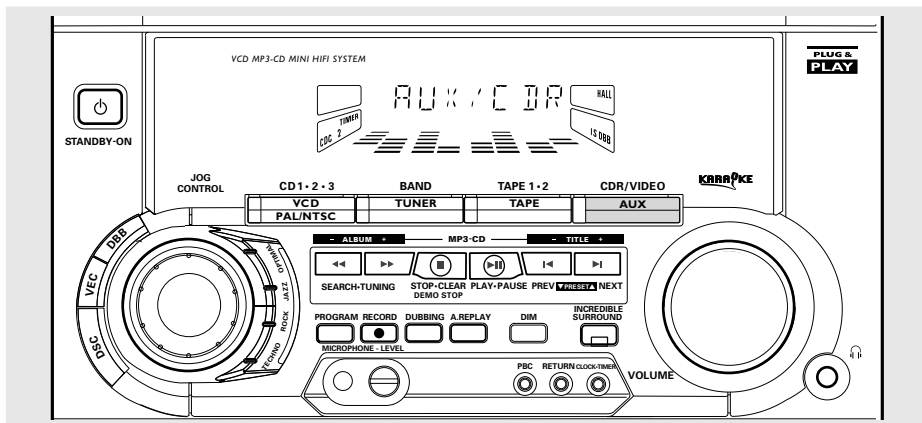
During playback

- Press and hold ◀ or ▶ until the desired passage is located.
→ "T 1" or "T 2" with "<<" or ">>" scrolling left or right will be displayed depending on which button is pressed.
→ During searching, the sound is reduced to a low volume.
→ When you release ◀ or ▶, the tape continues playing.

Notes:

- During rewinding or fast forwarding of a tape, it is also possible to select another source (e.g. CD, TUNER, or AUX).
- Before playing a tape, check and tighten slack tape with a pencil. Slack tape may get jammed or may burst in the mechanism.
- C-120 tape is extremely thin and is easily deformed or damaged. It is not recommended for use in this system.
- Store the tapes at room temperature and do not put them too close to a magnetic field (for example, a transformer, TV, or speaker).

Aux



Selecting External Equipment

If you have connected the audio out terminals of the external equipment (TV, VCR, Laser Disc player, DVD player or CD Recorder) to the AUX IN terminals, you can hear the enhanced sound from the system.

- Press **AUX** (CDR/VIDEO) to select the external equipment.
→ "AUX / CDR" will be displayed.

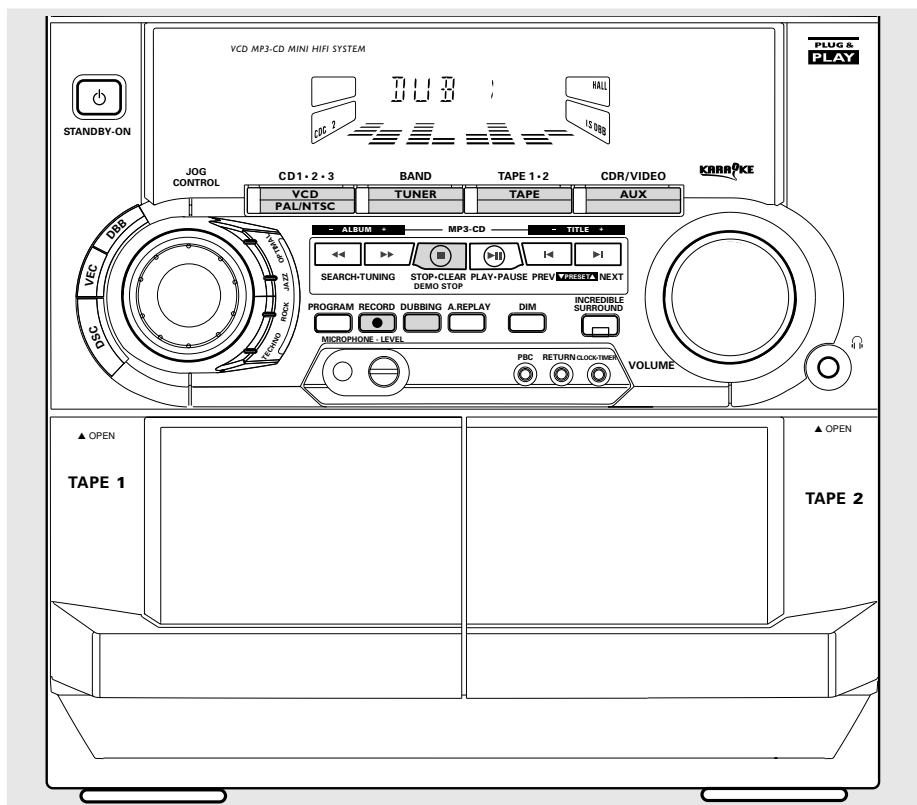
Note:

- All the sound control features (e.g. DSC, DBB, etc.) are available for selection.



Recording

English



Notes:

- If you do not intend to record via the microphone, unplug the microphone to avoid accidental mixing with other recording source.
- For recording, use only tape of IEC type I (normal tape).
- The tape is secured at both ends with leader tape. At the beginning and end of tape, nothing will be recorded for six to seven seconds.
- The recording level is set automatically, regardless of the position of VOLUME, Incredible Surround, DSC or VEC.
- To prevent accidental recording, break out the tab on the left shoulder of the tape side that you want to protect.
- If "CHECK TAPE" is displayed, the protection tab has been broken. Put a piece of clear adhesive tape over the opening.

Recording the mixed sound / One Touch Recording

- During microphone mixing, you can record the mixed sound on a tape in tape deck 2 except dubbing mode.
- For One Touch Recording, as soon as you press **RECORD**, the current source (VCD, TUNER or AUX) will be recorded on tape deck 2.

- 1 Load a blank tape in tape deck 2.
- 2 Press **RECORD** to start recording.
→ The REC starts flashing.
- 3 Press **■** to stop recording.

Note:

- When you press **RECORD** while in TAPE mode, "SELECT SOURCE" will be displayed. One Touch Recording is not possible in TAPE mode.





Recording

Dubbing tapes (from tape deck 1 to tape deck 2)

- 1 Press **TAPE** (TAPE 1•2) to select tape deck 2.
- 2 Load the prerecorded tape into tape deck 1 and a blank tape into tape deck 2 with full spool to the left.
- 3 Press **DUBBING**.
→ "IIII" with ">" scrolling right will be displayed.
- Dubbing will start immediately.
→ The **REC** starts flashing.
- 4 Press ■ to stop dubbing.

Notes:

- At the end of side A, flip the tapes to side B and repeat the procedure.
- Dubbing of tapes is only possible from tape deck 1 to tape deck 2.
- To ensure good dubbing, use tapes of the same length.
- You can switch to other source while dubbing.

Recording from other sources

(only on tape deck 2)

- 1 Load a blank tape into tape deck 2 with the open side downward.
- 2 Press **VCD, TUNER** or **AUX**.
- Start playback of the selected source.

- 3 Press **RECORD** to start recording.

→ The **REC** starts flashing.

- 4 Press ■ to stop recording.

Notes:

- During recording, it is not possible to listen to another source.

VCD/CD Synchro Start Recording

- 1 Load a blank tape into tape deck 2 and a disc into a disc tray.
- 2 Press **VCD** to select VCD/CD mode.
- You can programme the tracks in the order you want them to be recorded (see Programming Tracks). If not, select the disc by pressing **VCD** (CD 1•2•3) and the tracks are recorded according to the order on the selected disc.
- 3 Press **RECORD** to start recording.
→ The **REC** flag starts flashing.
- Disc will start playback automatically.
- 4 Press ■ to stop recording.

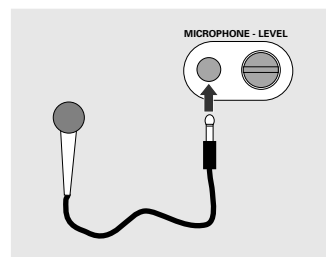
Karaoke

Microphone Mixing

- 1 Set the **MIC LEVEL** control to the minimum level to prevent acoustic feedback (e.g. a loud howling sound) before you connect the microphone.
- 2 Connect a microphone to the **MICROPHONE** socket.
- 3 Press **VCD, TUNER, TAPE** or **AUX**.
- 4 Play the selected source.
- 5 Adjust the volume level with **VOLUME** control.
- 6 Adjust the **MIC LEVEL** control to the mixing level that you want.
- 7 Start singing or talking through the microphone.

Note:

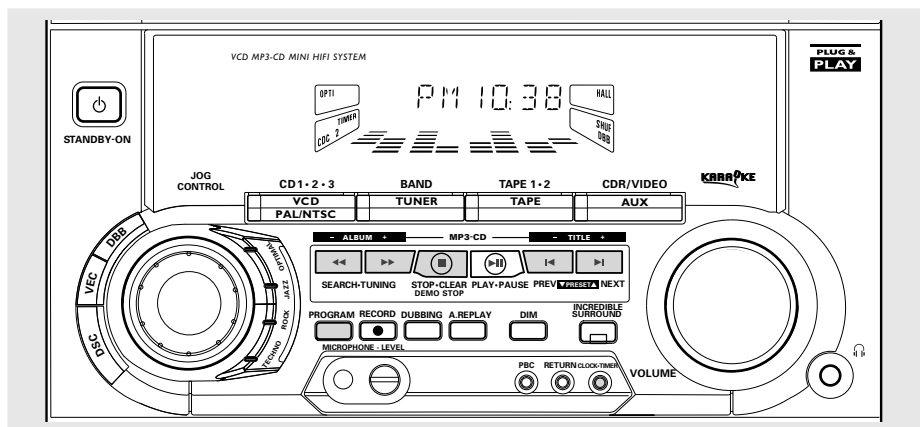
- Keep the mic away from the speakers to prevent howling





Clock/Timer

English



View Clock

You can view the clock (if it is set) if the system is in Standby mode or when any sound source is selected (VCD, TUNER, etc.). The clock will be displayed for about seven seconds.

- Press **CLOCK•TIMER** briefly (on the system only).
→ "PM 10:38" or "22:38" (the current time) will be displayed depending on whether you have selected 12- or 24-hour mode.
→ ":-:-:-:-" will be displayed if the clock is not set.

Clock Setting

The clock can be set in either 12- or 24-hour mode, e.g. "PM 12:00" or "00:00". Before setting the clock, you must be in the View Clock mode.

- 1 Press **CLOCK•TIMER** to select clock mode.
 - 2 Press **PROGRAM** to select 12- and 24- hour mode.
→ If 12-hour mode is selected, "PM 12:00" starts flashing.
→ If 24-hour mode is selected, "00:00" starts flashing.
 - 3 Set the hour with **◀** or **▶** on the system.
 - 4 Set the minute with **◀** or **▶** on the system.
 - 5 Press **CLOCK•TIMER** again to store the setting.
→ The clock starts.
- To exit without storing the setting, press **■** on the system.

Notes:

- During clock setting, if no button is pressed within 90 seconds, the system will exit clock setting mode automatically.
- When a power interruption occurs, the clock setting is erased.

Timer Setting

- The system can switch on to VCD, TUNER or TAPE 2 mode automatically at a preset time. It can serve as an alarm to wake you up.
 - Before setting the timer, make sure the clock is set correctly.
 - The timer will always be switched on once it is set.
 - **The volume of the timer will increase from the minimum level to the most recently selected volume level.**
- 1 Press and hold **CLOCK•TIMER** for more than **two seconds** to select timer mode.
→ "PM 12:00" or "00:00" or the last timer setting starts flashing depending on whether you have selected 12- or 24-hour mode.
→ The **TIMER** starts flashing.
→ The selected source is lit while other available sources are flashing.
 - 2 Press **VCD**, **TUNER** or **TAPE** to select the desired source.
- Before selecting VCD or TAPE, make sure a disc or tape is loaded in the disc tray or tape deck 2.



Clock/Timer

- 3 Press ◀ or ▶ on the system to set the hour for the timer to start.
- 4 Press ◀ or ▶ on the system to set the minute for the timer to start.
- 5 Press **CLOCK•TIMER** to store the start time.
 - The timer is now set.
 - The **TIMER** remains on the display.
- At the preset time, the timer will be activated.
 - The selected source will be played.

Notes:

- During timer setting, if no button is pressed within 90 seconds, the system will exit timer setting mode automatically.
- If the source selected is **TUNER**, the last tuned frequency will be switched on.
- If the source selected is **VCD**, playback will begin with the first track of the last selected disc or other trays if disc is empty. If all the disc trays are empty, the **TUNER** will be selected instead.
- The timer will not activate if a recording is in progress.

To switch off the **TIMER**

- 1 Press and hold **CLOCK•TIMER** for more than **two seconds**.
- 2 Press ■ on the system to cancel the timer:
 - The timer is now switched off.
 - The display will show "OFF" and the **TIMER** disappears.

To start the **TIMER** again (for the same preset time and source)

- 1 Press and hold **CLOCK•TIMER** for more than **two seconds**.
- 2 Press **CLOCK•TIMER** again to store the start time.
 - The timer is now on.
 - The **TIMER** appears on the display.

Maintenance

Cleaning the Cabinet

- Use a soft cloth slightly moistened with a mild detergent solution. Do not use a solution containing alcohol, spirits, ammonia or abrasives.

Cleaning Discs

- When a disc becomes dirty, clean it with a cleaning cloth. Wipe the disc from the centre out.
- Do not use solvents such as benzene, thinner, commercially available cleaners, or antistatic spray intended for analogue records.



Cleaning the **DISC** lens

- After prolonged use, dirt or dust may accumulate at the disc lens. To ensure good playback quality, clean the disc lens with Philips CD Lens Cleaner or any commercially available cleaner. Follow the instructions supplied with cleaner.

Cleaning the Heads and the Tape Paths

- To ensure good recording and playback quality, clean the heads, the capstan(s), and pressure roller(s) after every 50 hours of tape operation.
- Use a cotton swab slightly moistened with cleaning fluid or alcohol.
- You can also clean the heads by playing a cleaning tape once.

Demagnetizing the heads

- Use a demagnetizing tape available at your dealer.



Specifications

AMPLIFIER

Output power	2 x 35 W RMS ⁽¹⁾
.....	1500 PMPO
Signal-to-noise ratio	≥ 67 dBA (IEC)
Frequency response	80 – 15,000 Hz
Input sensitivity	
AUX In	700 mV
Microphone	3.5 mV
Output	
Speakers	≥ 6 Ω
Surround Speakers	≥ 6 Ω
Headphones	32 Ω – 1000 Ω

(1) (6 Ω, 1 kHz, 10% THD)

DISC PLAYER

Number of programmable tracks	99
Frequency response	20 – 20,000 Hz
Signal-to-noise ratio	≥ 80 dBA
Channel separation	≥ 60 dB (1 kHz)
Total harmonic distortion	< 0.003%
MPEG 1	VCD version 2.0
MPEG 1 Layer 3 (MP3-CD)	MPEG AUDIO
MP3-CD bit rate	32 – 256 kbps
sampling frequencies ...	48 kHz, 44.1 kHz, 32 kHz

TUNER

FM wave range	87.5 – 108 MHz
MW wave range (9 kHz)	531 – 1602 kHz
MW wave range (10 kHz)	530 – 1700 kHz
Tuning grid	9/10 kHz
Number of presets	40
Antenna	
FM	75 Ω wire
AM	Loop antenna

TAPE DECK

Frequency response	
Normal tape (type I)	80 – 12,500 Hz (8 dB)
Signal-to-noise ratio	
Normal tape (type I)	≥ 48 dBA
Wow and flutter	≤ 0.4% DIN

SPEAKERS

System	3 way; bass reflex
Impedance	6 Ω
Woofer	1 x 5.25"
Tweeter	1 x 2"
Dimensions (w x h x d)	210x 310x 235(mm)
Weight	3.0 kg each

GENERAL INFORMATION

Material	Polystyrene
.....	110 - 127 / 220 - 240 V~;
.....	50/60Hz; Switchable
Power Consumption	
Active	75 W
Standby	< 25 W
Dimensions (w x h x d)	265x 310x 340(mm)
Weight (without speakers)	6.9 kg

Subject to modification



Troubleshooting

WARNING

Do not open the player as there is a risk of electric shock! Under no circumstances should you try to repair the player yourself, as this will invalidate the warranty

If a fault occurs, first check the points listed below before taking the player for repair. If you are unable to remedy a problem by following these hints, consult your dealer or service centre.

Symptom	Remedy
DISC PLAYER OPERATION	
"UNREADABLE DISC" is displayed.	<ul style="list-style-type: none">– If the disc is inserted upside down.– Moisture condensation at the lens.– The disc is dirty, badly scratched or warped.– The disc lens is dirty or dusty, refer to section under Maintenance.– An incorrect MP3-CD format disc is inserted
"NO DISC" is displayed.	<ul style="list-style-type: none">– There is no disc in the disc tray.
No picture on TV screen.	<ul style="list-style-type: none">– Connect the cable between the system and TV.
No colour on TV.	<ul style="list-style-type: none">– Change the system to the respective PAL or NTSC setting.
Cannot adjust the TV system to PAL or NTSC.	<ul style="list-style-type: none">– Remove the MP-3 CD from disc tray 1 or press DISC CHANGE to select a non MP3 disc tray before adjusting the TV system.
RADIO RECEPTION	
Poor radio reception.	<ul style="list-style-type: none">– The signal is too weak, adjust the antenna or connect an external antenna for better reception.– The TV or VCR is too close to the stereo system.
Cannot tune to station	<ul style="list-style-type: none">– Wrong tuning grid.
TAPE DECK OPERATION	
Recording or playback cannot be made or there is a decrease in audio level.	<ul style="list-style-type: none">– Dirty tape heads, capstans or pressure rollers, refer to section under Maintenance.– Magnetic build-up in the record/playback head, use demagnetizing tape.
Tape deck door cannot open.	<ul style="list-style-type: none">– Reconnect the AC power plug and switch on the system again.



Troubleshooting

GENERAL

System does not react when any button is pressed.

- Press STANDBY-ON to switch the system off. Remove the AC power plug from the wall outlet, then reconnect the power plug and switch on the system again.

No or poor sound.

- Adjust the volume.
- Disconnect the headphones.
- Check that the speakers are connected correctly.
- Check if the stripped speaker wire is clamped.
- Make sure the MP3-CD was recorded within 32-256 kbps bit rate with sampling frequencies at 48 kHz, 44.1 kHz or 32 kHz.

Reversed left and right sound.

- Check the speaker connections and location.

Lack of bass sound or apparently imprecise physical location of musical instruments.

- Check the speaker connection for proper phasing, colored/black wires to colored/black terminals.

Remote control has no effect on the system.

- Select the source (VCD, TUNER, etc.) before pressing the function button (▶, ◀, ▶, etc.).
- Reduce the distance to the system.
- Insert the batteries with their polarities (+ / - signs) as indicated.
- Replace the batteries.

Timer is not working.

- Set the clock.
- Press CLOCK•TIMER to switch on the timer.
- If recording is in progress, stop recording.

Clock setting is erased.

- Reset the clock.

System displays features automatically; buttons flash continuously.

- Press and hold ■ (on the system) for five seconds to switch off the demonstration.

All lighted buttons are not lit.

- Press DIM until DIM OFF display mode is shown.